

What is claimed is:

1. A redundant network management system for assigning a master port network controller, the system comprising:

5 two call processing devices, wherein one of the two call processing devices is active and the other one of the two call processing devices is inactive and the active one of the two call processing devices receives a call request and generates a call routing instruction;

10 an interconnecting means for connecting the two call processing devices , wherein the active one of the two call processing devices receives the call request generates the call routing instruction;

at least two port network controllers interfacing with the two call processing devices; and

15 a means for assigning one of the at least two port network controllers as the master port network controller, wherein the one of the at least two port network controllers that is assigned as the master port network controller processes the call routing instruction.

2. The redundant network management system of claim 1 wherein the
20 means for assigning further comprises:

a token bus interconnecting the at least two port network controllers, wherein one of the at least two port network controllers request a token and the one of the at least two port network controllers that receives the token is the master port network controller.

3. A redundant network management system for assigning a master port network controller, the system comprising:

an inactive call processing device;

an active call processing device to processes a plurality of call requests and

5 generate a plurality of call routing instructions;

a means for interconnecting the active call processing device and the inactive call processing device such that when the active call processing device receives the plurality of call requests the active call processing device sends a copy of the plurality of call requests to the inactive call processing device and the active 10 call processing device; and

two or more port network controllers connected to the active call processing device and the inactive call processing device to receive the plurality of call routing instructions; and

a token bus interconnecting the two or more port network controllers, 15 wherein at least one of the two or more port network controllers request a token and the one of the two or more port network controllers that receives the token is assigned as the master port network controller to process the plurality of call routing instructions received from the active call processing device.

20 4. The system of claim 3 further comprising:

a communication channel interconnecting the two or more port network controllers to the active call processing device and the inactive call processing device, wherein the active call processing device sends the plurality of call routing instructions to the master port network controller via the communication channel.

5. The system of claim 3, wherein a means for interconnecting comprises:

a communication link interconnecting the inactive call processing device and the active call processing, wherein when the communication link fails the inactive
5 call processing device transitions to an active state.

6. A method of assigning a master port network controller in a telephony switching system comprising an active call processing devices connected to an inactive call processing device via a communication link and the active call
10 processing device processes a plurality of call requests and transmits a plurality of call routing instructions over a channel to a plurality of port network controllers, wherein the plurality of port network controllers are interconnected via a token bus connection, the method comprising:

sending at least one instruction from at least one of the duplicate call
15 processing devices to at least one of the plurality of port network controllers instructing the at least one of the plurality of port network controllers to operate as the master port network controller;

sending at least one request for a token from the at least one of the plurality of port network controllers that received the at least one instruction; and

20 giving the token to one of the at least one of the plurality of port network controllers that sent the at least one request for a token, wherein the one of the plurality of port network controllers that receives the token operates as the master port network controller.

7. The method of claim 6 wherein sending at least one instruction further comprises:

sending a first instruction from the active call processing device to a first one of the plurality of port network controllers instructing the first one of the plurality of port network controllers to operate as the master port network controller; and

5 sending a second instruction from the inactive call processing to a second one of the plurality of port network controllers instructing the second one of the plurality of port network controllers to operate as the master port network controller.

10 8. The method of claim 6 wherein sending at least one request further comprises:

sending a first request for the token from a first one of the plurality of port network controllers; and

15 sending a second request for the token from a second one of the plurality of port network controllers.

9. A method of assigning a master port network controller when a telephony switching system is initialized, the telephony switching system comprising a first call server and a second call server interfacing with two or more port network controllers, the two or more port network controllers connected on a token bus, the method comprising:

the first call server, instructing one of the two or more port network controllers to operate as the master port network controller;

25 the one of the two or more port network controllers, transitioning to a master port network controller, the transition comprising:

requesting a token from the token bus;
receiving the token; and
informing the first call server that the one of the two or more port
network controllers received the token.

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